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TITLE: ROD-IN TUBE OPTICAL FIBER PREFORM AND METHOD
OF DRAWING THE SAME
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ABSTRACT:

PROBLEM TO BE SOLVED: To reduce the manufacturing cost and to increase the yield obtained from a preform by assembling a RIT preform in a relatively simple manner and eliminating the prior heating step.

SOLUTION: An optical fiber preform 10 includes a core rod 18 and an overclad tube 20 having an open, distal end dimensioned to enter the mouth 12

of a
vertical fiber draw furnace 14. A plug 22 is fixed in the region of
the distal
end of the tube 20, and the core rod 18 is disposed axially inside
the overclad
tube 20 so that a distal end of the rod 18 is restrained from
downward movement
by the plug 22 as the tube 20 enters and descends into a hot zone of
the draw
furnace 14. The distal end 16 of the tube 20 is heated in the
furnace hot zone
until the tube 18 and the plug 22 soften and fuse to each other. The
tube then
collapses onto the core rod to produce a drop from which an optical
fiber
having desired properties may be drawn.

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